

Z Gerontol Geriat 2010 · 43:36–41
 DOI 10.1007/s00391-009-0083-z
 Eingegangen: 25. August 2009
 Akzeptiert: 13. September 2009
 Online publiziert: 17. Februar 2010
 © Springer-Verlag 2010

T. Platt · W. Ruch · R.T. Proyer
 Department of Psychology, University of Zurich, Switzerland

A lifetime of fear of being laughed at

An aged perspective

Implicitly we assume laughter is contagious, bonding, and leads to positive emotions. Yet we know sarcasm and being laughed at are unpleasant. Do senders and receivers of humorous messages agree on the affective quality? Research shows gelotophobia (the fear of being laughed at) exists. Present worldwide, it is measureable with predictable correlates and outcomes. Professionals dealing with people must consider its impact on human interactions. With age-related mishaps arising in the elderly, the fear might be a problem. What harmful role does habitual gelotophobia play in the lives of the elderly?

What is gelotophobia?

Ridicule is a social control that uses shame to make others conform to the social norms of a group [2]. Very few people lack the emotional discomfort caused by being the focus of ridicule. However, for some, the mere sight of a smile or hearing laughter is enough to elicit shame, anxiety, and fear. Patients presenting in a clinical setting led to the identification of what was defined by Dr. Michael Titze as a pathological fear of appearing to social partners as a ridiculous object, more precisely, having a fear of being laughed at [23]. This fear is now termed gelotophobia, from the Greek *gelos* meaning laughter. Ruch [13] produced a graphical model of the proposed putative causes and consequences of gelotophobia (■ Fig. 1), which systematizes Titze's comprehensive observations.

Based on single case studies Titze described the appearance of gelotophobes and postulated that gelotophobia, in general, originates from repeated traumatic experiences of being ridiculed or “put down” during childhood and adolescence (■ Fig. 1). He refers to etiologic indications that claim that these traumatic experiences are facilitated by specific childhood conditions, having their roots in early parent–child interactions [23]. Furthermore, having developed this fear leads to a variety of outcomes, such as social withdrawal, low social competence, or a distrust of humor and laughter, which, if left untreated, could significantly malign quality of life in old age.

The main instruments for the assessment of gelotophobia, the GELOPH<15>, the PhoPhiKat-45, and an economic 30-item version of the latter, have been used

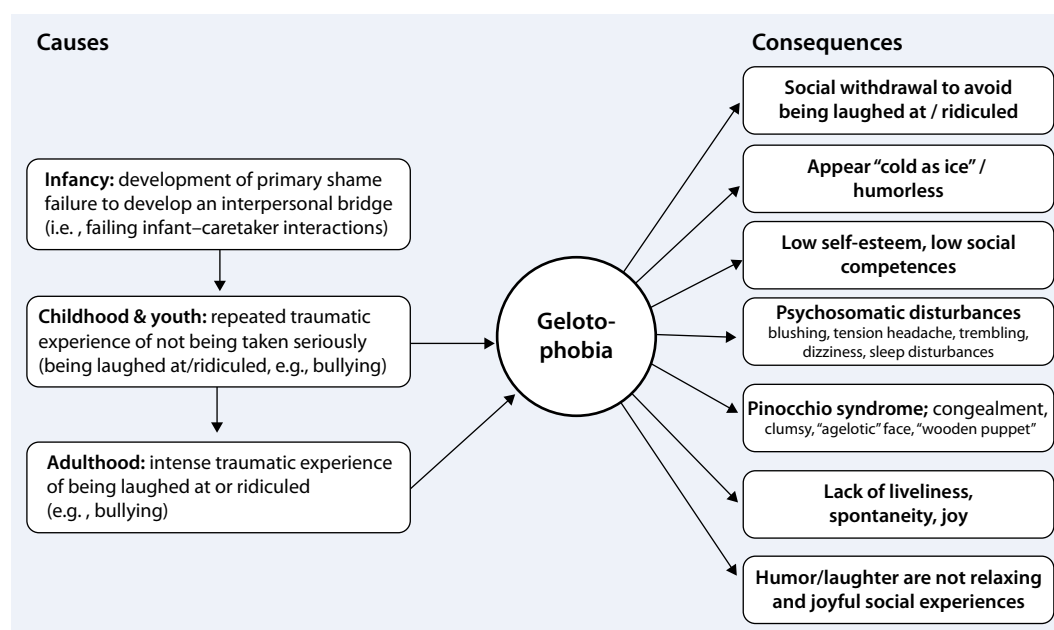


Fig. 1 ◀ A model of the putative causes and consequences of gelotophobia as proposed by Titze [13]

and validated in several studies [16, 17, 18]. The phenomenon exists on a dimension, from no fear, slight, pronounced, and extreme (perhaps pathological) fear. Gelotophobia can, therefore, be seen as an individual difference in a normal adult population [16]. The fear of being laughed at has been verified in more than 70 countries [12].

Correlates of gelotophobia

Sociodemographics and gelotophobia

Gelotophobia was not shown to be correlated to gender, level of education, rural vs. urban living, or size of district of residence [16, 17]. Employed participants had lower scores than unemployed, and people who live alone scored higher than those who live with someone else [16]. In several studies, singles scored higher than married and divorced/separated participants [1, 8]. An investigation using an older population, where being in a relationship is more the norm, found that being single but actively looking for a partner went along with slight gelotophobia [6].

Gelotophobia was most often shown to be uncorrelated to age [16, 17]. Nevertheless, correlations or cross-sectional data offer very little information about age development. Longitudinal data are still lacking but Platt [6] asked people of different age groups (focusing on persons over 60) to remember a time when they did not feel comfortable being confronted by other people smiling and laughing, thus, giving a better perspective. As can be seen in **Fig. 2**, the fear of being laughed at is highest during adolescence and then consecutively drops until the 40s. Lifespan studies [3] measuring anxiety show a similar pattern. How then is it relevant for an older population?

Even though the intensity drops starting at the age of 40 years, it still remains as high as 20%. It appears that those born more than 60 years ago were less fearful as adolescents than those born between 40 and 60 years ago. This might be a weak indicator that this fear has increased over the years, yet this would only be conclusive with a longitudinal study. Interaction style may have changed, with more people

Abstract · Zusammenfassung

Z Gerontol Geriat 2010 · 43:36–41 DOI 10.1007/s00391-009-0083-z
© Springer-Verlag 2010

T. Platt · W. Ruch · R.T. Proyer

A lifetime of fear of being laughed at. An aged perspective

Abstract

This paper reviews recent literature on gelotophobia (i.e., the fear of being laughed at) with an emphasis on age-specific aspects. Research with two instruments, the GELOPH and PhoPhiKat questionnaires, is presented with special attention being given to sociodemographic correlates and differences in intelligence, character strengths, personality, emotion, and humor. Quite consistently gelotophobes tend to misread positively motivated smiling and laughter (e.g. in social interactions, photographs or auditorily presented) and have lower values in many, but not all, components of humor. They have a low propensity to joy and a disposition to experience shame and fear. More generally they tend to describe themselves as being introverted and

neurotic, and they underestimate their own potential while not actually being less capable. Furthermore, new data are presented suggesting that age-related vulnerabilities may be additional sources of ridicule making gelotophobia more of a problem for the elderly. Finally, the prevalence of this fear over the lifespan and potential cohort effects are discussed. It is concluded that more research into this fear and its adverse impact on social interactions, even humorous ones, of the elderly is needed.

Keywords

Gelotophobia · Elderly · Ridicule · Laughter · Humor

Die lebenslange Angst vor dem Ausgelachtwerden. Ein altersspezifischer Aspekt

Zusammenfassung

Der vorliegende Artikel bietet, mit dem Hauptaugenmerk auf altersspezifische Aspekte, einen Überblick über die aktuelle Literatur zur Gelotophobie (der Angst vor dem Ausgelachtwerden). Vorgestellt werden Studien, die mit den Fragebögen GELOPH<15> und PhoPhiKat durchgeführt wurden. Dabei wird soziodemographischen Korrelaten sowie Unterschieden hinsichtlich Intelligenz, Charakterstärken, Persönlichkeit, Emotionen und Humor besondere Aufmerksamkeit gewidmet. Ein konsistenter Befund ist, dass Gelotophobiker dazu neigen, positiv motiviertes Lächeln und Lachen (in sozialen Interaktionen, auf Fotos oder akustisch präsentiert) fehlerhaft zu interpretieren. Sie schneiden in vielen, aber nicht allen, Komponenten des Humors mit niedrigeren Werten ab. Darüber hinaus neigen sie wenig zu Freude und zeigen eine Disposition, Scham und Angst zu erleben. Allgemein beschreiben sie

sich als introvertiert und neurotisch und unterschätzen ihr eigenes Potenzial, auch wenn sie tatsächlich nicht weniger leisten können als Nichtgelotophobiker. Weiter werden neue Daten vorgestellt, die zeigen, dass altersspezifische Vulnerabilitäten zusätzliche Quellen dafür sein können, ausgelacht zu werden. Das macht Gelotophobie zu einem größeren Problem unter älteren Menschen. Zuletzt werden auch die Prävalenz der Gelotophobie über die Lebensspanne hinweg sowie mögliche Kohorteneffekte diskutiert. Es wird die Schlussfolgerung gezogen, dass es mehr Studien bedarf, die sich dieser Angst und ihren negativen Auswirkungen auf soziale Interaktionen, gerade auch humorbezogene, widmen.

Schlüsselwörter

Gelotophobie · Alter · Spott · Lachen · Humor

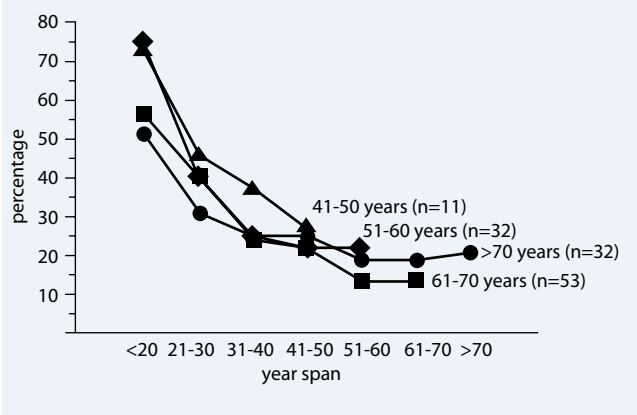


Fig. 2 ▲ Age-related differences in gelotophobia as remembered by groups of different age (41–50 years and >70-year-old participants)

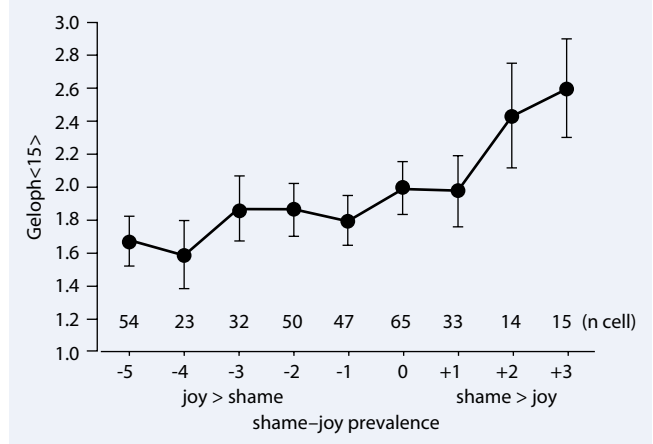


Fig. 3 ▲ Mean gelotophobia and prevalence of shame vs. joy. (Figure redrawn from data in [9])

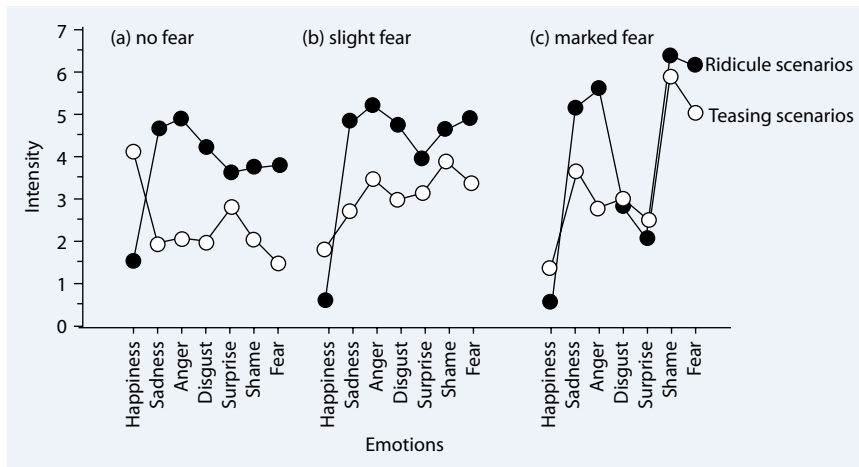


Fig. 4 ▲ Stipulated intensity of emotions presumably experienced during teasing and ridicule separately for individuals with (a) low (n=67), (b) slight (n=26), and (c) marked (n=10) gelotophobia. (Adapted from [6])

openly laughing at others, producing more people who fear laughter. An alternative explanation is that it is easier to remember gelotophobia where less time passed since it occurred. These data confirm Titze’s assumption that gelotophobia may develop during childhood and youth. However, a few older participants did indicate having this fear only during the last decade. Results also showed that if gelotophobia was still present in the 50s it prevailed. More data are required to clarify the lifespan developments.

Strength and intelligence

There seems to be a pattern of underestimating one’s own potential among gelotophobes. In a first study, people were asked to rate on a scale from 0 to 100 how

good they are in different facets of intellectual ability (e.g., reasoning, vocabulary, or spatial ability) and afterwards, they completed psychometric tests that assess these abilities [10]. Results suggest that gelotophobes do not differ from non-gelotophobes in their psychometric abilities. However, in the self-ratings of intelligence, they underestimate their abilities by about six IQ points. In another study [11], participants completed the Values in Action Inventory of Strengths [21] and had two persons filling in the questionnaires for them as well (peer ratings). Again, gelotophobes tended to see themselves as less virtuous than their peers, i.e., they underestimate their strengths of character. This suggests that gelotophobic older people might underestimate their capabilities.

Personality and personality pathology

Gelotophobia can be located in models of normal (e.g., Eysencks PEN model and the Big Five) and abnormal personality. Gelotophobia correlated consistently and highly with the extraversion (negatively) and neuroticism (positively) scales of various forms of the Eysenck personality questionnaire. In addition, smaller positive correlations with precursors of the P-scale suggest that that gelotophobes are also higher in psychoticism [19]. A similar pattern was found using a clinical instrument [4] measuring traits that are associated with DSM-described personality disorders, e.g., anxiousness, callousness. The fear of being laughed at correlated most highly with social avoidance, identity problems, and submissiveness. In a stepwise regression analysis, social withdrawal and suspiciousness had the highest predictive power. Submissiveness and low stimulus seeking made low but significant predictions of gelotophobia as well [20]. Thus, while gelotophobia overlaps strongly with several traits of normal personality and personality disorders, it cannot be completely explained by these variables having distinct features. Being a social avoidant and submissive may cause issues with seeking assistance and tolerating unsatisfactory conditions at a time in life when help from others is required.

Emotions

By definition, emotions are a key factor in the fear of being laughed at. For Titze, gelotophobia is shame–anxiety. However, in terms of personal disposition to emotions, Platt and Ruch [9] discovered that three emotions are involved, namely, low levels of joy and high levels of fear and shame.

— Moreover, where the disposition to shame exceeds that to joy, gelotophobia is likely to develop.

The results of the reanalyzed data are shown in **Fig. 3**. The mean gelotophobia level clearly varied as a function of an individual's location on a scale ranging from joy–dominance to shame–dominance ($F[2, 324] = 6.770; p < 0.001$). This difference score was based on anchored estimations of the maximal joy and shame that one has ever experienced. Post hoc tests (Fishers PSLD) allowed distinguishing three groups (all comparisons at least $p < 0.05$). Strong prevalence of joy (scores < -4) went along with very low level of fear. An indifference group (scores between -3 and $+1$) yielded significantly higher scores that, on average, do not indicate a fear of being laughed at. The groups with a clear prevalence of shame over fear (scores $> +2$) were significantly higher than any other group ($p < 0.001$) and their mean already exceeded the threshold for slight fear. Thus, emotion disposition might hold the key to understanding the development of this fear.

Platt [7] studied whether the emotions experienced during ridicule and teasing are moderated by the level of gelotophobia. The data are based on responses given to eight prototypical scenarios. In **Fig. 4**, it is shown that while teasing and ridicule led to almost mirroring emotions for those with no fear of being laughed at, the emotion profiles for ridicule and teasing are highly parallel for those with a slight fear of being laughed at. For individuals with pronounced gelotophobia, the two scenarios are identical with respect to most emotions.

— Feeling that one is ridiculed may increase with age due to failures in performance.

Tab. 1 Correlates of gelotophobia: humor, laughter, and wit

Positive correlates/high scores go along with	Negative correlates/low scores go along with
Bad mood (STCI-T)	Affiliative humor (HSQ)
Boorish humor style (HBQD) (students only)	Benign humor style (HBQD)
Factor grumpy (vs. cheerful) (HUWO)	Competent humor style (HBQD)
Factor serious (vs. playful) (HUWO)	Coping humor (CHS)
Finding aggressive humor aversive	Earthy humor style (adults only)
Finding sexual humor aversive (3WD)	Enhanced positive and lowered negative affect after hearing laughter
Give more answers expressing mockery and fear of being laughed in a semi-projective cartoon evaluation task	Factor cheerful (vs. grumpy) (HUWO)
Inept humor style (HBQD)	Factor playful (vs. serious) (HUWO)
Laughter depicts "embarrassed" person	Funniness of incongruity-resolution humor (3WD)
Mean-spirited humor style (HBQD)	Funniness of nonsense humor (3WD)
Negative laughter perceived as "not dominant"	Laughing at yourself (SHS)
No change in mood (positive, negative) after hearing laughter	Laughter depicts "happy" person
Positive laughter perceived as "neutral"	Negative laughter perceived as "dominant"
Repressed humor style (HBQD) (adults only)	Playfulness and positive mood (SHS)
Self-defeating humor style (HSQ)	Positive laughter perceived as "pleasant"
Seriousness (STCI-T) (adults only)	Reflective humor style (HBQD) (students only)
Seriousness and negative mood (SHS)	Self-enhancing humor (HSQ)
Socially cold humor style (HBQD)	Sense of humor (SHS)
	Socially warm humor style (HBQD)
	Trait cheerfulness (STCI-T)
Uncorrelated with/high and low scores may go along with	
Aggressive humor (HSQ)	Fluency of punch line production (CPPT)
Finding incongruity-resolution humor aversive (3WD)	Funniness of sexual humor (3WD)
Finding nonsense humor aversive (3WD)	Originality of produced punch line (CPPT)
3 WD 3 Witz-Dimensionen humor test, CHS Coping Humor Scale, CPPT Cartoon Punch line Production Test, HBQD Humorous Behavior Q-Sort Deck, HSQ Humor Styles Questionnaire, HUWO Humor Words, STCI-T State Trait Cheerfulness Inventory. For size of correlations and further description of these studies and the measures used, see the original articles.	

This could intensify gelotophobic feelings in old age.

Humor, laughter, and wit

According to Titze [23] "[t]he general state of gelotophobes is "agelotic", i.e., they are not able to appreciate the benefits of laughter" (p. 31). He claimed that the origin of this state often derives from the fact that the individuals frequently experienced their early reference person(s) as lacking a smiling face. Therefore, the children experience themselves as being unconnected to others and do not interpret laughter as a positive element of shared identity. They experience their peers as hostile strangers who treat them in a cold, sarcastic, and disparaging way, and one weapon these strangers might use is derisive laughter. Gelotophobic patients then feel uneasy and fear being humiliated by those who face them in a laughing and/or smiling way (**Fig. 1**).

➤ Gelotophobes are not able to appreciate the benefits of laughter

A summary of findings relating to humor, laughter, and wit as derived from different studies is given in **Tab. 1** [14, 15, 21]. The multitude of findings gives a coherent picture, depicting the gelotophobe as someone with a different stance towards laughter, e.g., they do not perceive positive laughter as such, attribute more easily negative motivations to laughter by others, and hearing laughter does not change their mood to more positive [14]. In terms of habitual mood and frame of mind, they are more serious than playful, and more grumpy and sad than cheerful.

— Gelotophobes ascribe themselves as having a lower sense of humor and indicate not being able to laugh at themselves.

Tab. 2 Correlations between gelotophobia and the agreement to the answer that reflects fear of being laughed at in 14 situations involving age-related problems that might be part of ridicule

Problem domain	Description of situation	r
Isolation	The weather has been particularly cold so you have not ventured outside. This means you have not seen or spoken to anyone for days. You are feeling really miserable and lonely	0.380***
Physical decline	When you wake up, all your joints are stiff and aching. Getting up takes you a long time. You could ask for help but, if you do, you need to tell someone how weak you feel	0.274**
Relationships	You are struggling to open your front door when your next-door neighbor walks past you without offering to help	0.156
Grief	You read in the local newspaper that someone you knew well for a long time has died. You feel very sad at their passing	0.224*
Depression	You really would like to have a cup of coffee but you only have one jar and you cannot get the lid off. You feel really useless and weak	0.343***
Financial	You go out for a drink to your local club and someone asks you if you would like to have a drink bought. If you say yes, you feel you would have to buy them one back but you cannot afford to do so	0.119
Psychiatric	You keep forgetting where you put things and when you speak you cannot think of the right words you want to use. This is happening more frequently	0.221*
Physical decline	You used to love going for long country walks but now you get tired so quickly which makes you become unstable. You cannot get around as much as you did as you are now scared of falling	0.478***
Accommodation	You have not been feeling well and your doctor suggests you move into accommodations that have a person who can call and check in on you. You worry you will lose your independence	0.164
Isolation	Life is not as much fun these days. You spend more time alone than in the company of people	0.388***
Lack of control	Things are getting more difficult to manage alone. You are contemplating getting home assistance. Someone to do your shopping, clean, help cook your meals and get you dressed and up in the morning	0.373***
Social support	You sometimes wish people would just drop by or call you up, to ask how you are and how your day has been. If you did not make the effort to call, no one thinks of calling you	0.182*
Medication	You have to ask the pharmacist for new medication. The doctor has given you another tablet to take, twice a day. You now take a lot of medications. You worry that people might think you are a hypochondriac	0.180*
Impaired senses	When you watch television or the radio, you find you need to concentrate to hear what is being said, even if you turn it up. You sometimes wonder what you miss when people talk to you	0.307***

n=119–127, r correlation with the gelotophobia measure of the PhoPhiKat-30.

They, among others, characterize their humor style as inept, socially cold, and mean-spirited, report less frequent use of humor as a means for coping and indulge less often in self-enhancing and social humor [15]. However, overall one cannot say that feeling ridiculous equals being humorless in general, as several components of humor were uncorrelated or only slightly negatively correlated (e.g., finding jokes and cartoons funny) to the fear of being laughed at. Also, while gelotophobes see themselves as “inept” and lacking humor com-

petencies, a performance test did not show any difference compared to those without a fear of being laughed at. All in all, the gelotophobes’ low level of cheerfulness and the lack of a playful frame of mind impair the development of humor skills and enhance the likelihood that humorous messages will be processed in a serious frame of mind and elicit negative emotions [9]. This is an important consideration for caregivers of old people. As older people require social support, it is essential to remember that not all will benefit from social activi-

ties. Gelotophobes would fear such interactions and not feel comfort from mixing with others in a more playful way.

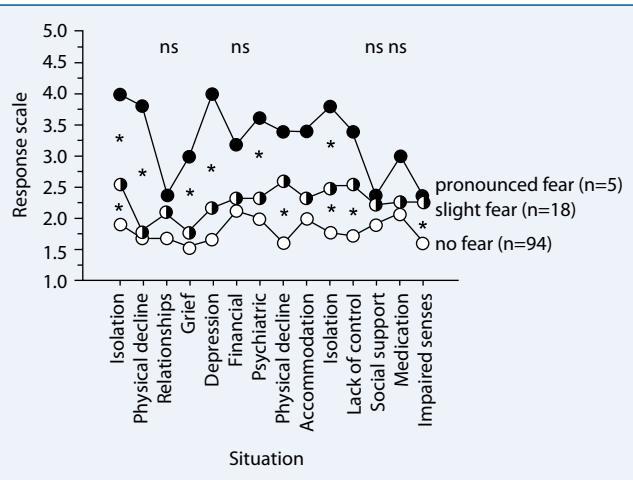
Gelotophobia and age-exacerbated problems

How does a fear of being laughed at affect older people’s lives? Older people are susceptible to age-related vulnerabilities due to the physical and mental decline that comes with aging. They have a tangible source of problems to attribute the laughter of others, thus, decreasing gelotophobia. The other possibility is that the vulnerabilities leading to failures, mishaps, and mistakes could be greater sources of ridicule increasing the fear. Thus, for sufferers of gelotophobia, old age can be even more problematic.

Platt [6] designed 14 situations reflecting common age-related problems to study whether fear of being laughed at expresses itself in dealing with the embarrassment arising from age-exacerbated problems. For each of the vulnerabilities (e.g., isolation), the participants were presented brief descriptions of a typical situation together with sample answers of hypothetical persons. One reflected the fear of being laughed at (for isolation: “People would laugh at me for feeling miserable and lonely, so I prefer not to tell anyone”) and participants were asked to rate how close their own answer to the statement would be on a 1 (not at all) to 5 (very like my answer) rating scale. The situations representing the problem areas, together with the correlation between gelotophobia and the unwillingness to talk to others about these events to avoid ridicule, are given in **Tab. 2**.

Previous studies indicate that people with different degrees of gelotophobia react differently in various situations. Thus, a more detailed analysis separately studied those with no fear, slight fear, and marked fear (**Fig. 5**); one-way ANOVAs were computed for each of the 14 situations. Only four situations (marked with “ns”) did not reflect an effect of the fear of being laughed at on the intensity of the response. Post hoc tests indicated that whenever there was a significant F-value in the ANOVA, the groups with marked fear were higher than the ones with no

Fig. 5 ▶ Stipulated intensity of gelotophobic answer in 14 situations reflecting age-typical vulnerabilities by individuals with no, slight and pronounced fear of being laughed at (* indicates significance of the neighboring groups; Platt, unpublished finding)



fear. In **Fig. 5**, it can be seen that, on average, those with slight fear gave more gelotophobic answers than those without fear. Those with a marked fear of being laughed at gave especially salient answers in the scenario situations. This shows that a lifetime of gelotophobia may prepare the aged to withdraw from others even more, as age-related problems are a new and additional source for feeling ridiculous.

Practical conclusions

A significant proportion of older people's lives will be negatively affected by this hitherto not widely discussed fear of being laughed at. Found more often among introverted, emotionally labile singles, gelotophobes generally have low inclinations to joy and high inclinations to fear and shame, resulting in further social withdrawal with no apparent "reason" to the caretaker, friends, or relatives. Using humor and wit to create stronger bonds may be counterproductive with gelotophobes, as these individuals may misinterpret laughter and even good-natured joking. Caretakers need to be aware and avoid the use of irony, sarcasm, or witticism altogether. While about half of the people indicated having experienced discomfort due to others smiling and laughter that they could not explain during their adolescence, this tendency declines with age. Untreated fear of being laughed at can be life-long when it remains past 50 years of age, and this will affect how older people deal with embarrassments that frequently come from decline.

Further information about gelotophobia

Internet links

<http://www.gelotophobia.org/>
<http://www.gelosweb.com/>
<http://health.groups.yahoo.com/group/Gelotophobia/>
http://www.sciencenews.org/view/feature/id/45581/title/When__Humor_Humiliates
<http://www.michael-titze.de/>
<http://www.reference-global.com/doi/abs/10.1515/HUMR.2009.001>

Corresponding address

T. Platt



Department of Psychology,
University of Zurich,
Binzmühlestr. 14/7, 8050 Zurich,
Switzerland
tracey.platt@
psychologie.uzh.ch

Conflict of interest. The corresponding author states that there are no conflicts of interest.

References

- Forabosco G, Ruch W, Nucera P (2009) The fear of being laughed at among psychiatric patients. *Humor* 22:233–252
- Janes LM, Olsen JM (2000) Jeer pressure: the behavioral effects of observing ridicule in others. *Pers Soc Psychol Bull* 26:474–485
- Jorm AF (2000) Does old age reduce the risk of anxiety and depression? A review of epidemiological studies across the adult lifespan. *Psychol Med* 30:11–22
- Livesley JW, Larstone RM (2008) The dimensional assessment of personality disorder (DAPP). In: Boyle GJ, Matthews G, Saklofske DH (eds) *The SAGE handbook of personality theory and assessment*. Sage, Los Angeles, pp 608–625
- McGhee P (1999) Health healing and the amuse system: humor as survival training. Kendall/Hunt, Dubuque, IA
- Platt T (2009) Gelotophobia and age. Unpublished data, Department of Psychology, University of Zurich, Zurich Switzerland

- Platt T (2008) Emotional responses to ridicule and teasing: should gelotophobes react differently? *Humor* 21:105–128
- Platt T, Proyer RT, Ruch W (2009) Gelotophobia and bullying: the assessment of the fear of being laughed at and its application among bullying victims. *Psychol Sci Q* 5:135–147
- Platt T, Ruch W (2009) The emotions of gelotophobes: shameful, fearful and joyless? *Humor* 22:91–110
- Proyer RT, Ruch W (2009) Intelligence and gelotophobia: the relations of self-estimated and psychometrically measured intelligence to the fear of being laughed at. *Humor* 22:165–181
- Proyer RT, Ruch W (2009) How virtuous are gelotophobes? Self- and peer-reported character strengths among those who fear being laughed at. *Humor* 22:145–163
- Proyer RT, Ruch W, Ali NS et al (2009) Breaking ground in cross-cultural research on the fear of being laughed at (gelotophobia): multi-national study involving 73 countries. *Humor* 22:253–279
- Ruch W (2004) Gelotophobia: A useful new concept? IPSR Spring 2004 Colloquium Series, Department of Psychology, University of California at Berkeley, Berkeley, CA, USA
- Ruch W, Altfreder O, Proyer RT (2009) How do gelotophobes interpret laughter in ambiguous situations? An experimental validation of the concept. *Humor* 22:63–89
- Ruch W, Beermann U, Proyer RT (2009) Investigating the humor of gelotophobes: does feeling ridiculous equal being humorless? *Humor* 22:111–143
- Ruch W, Proyer RT (2008) The fear of being laughed at: individual and group differences in gelotophobia. *Humor* 21:47–67
- Ruch W, Proyer RT (2008) Who is gelotophobic? Assessment criteria for the fear of being laughed at. *Swiss J Psychol* 67:19–27
- Ruch W, Proyer RT (2009) Extending the study of gelotophobia: on gelotophiles and katagelasticians. *Humor* 22:183–212
- Ruch W, Proyer RT (2009) Who fears being laughed at? The location of gelotophobia in the PEN-model of personality. *Pers Indiv Differ* 46:627–630
- Ruch W, Proyer RT (2009) Predicting the fear of being laughed at: traits of personality and psychopathology. Poster presented at the 11th Congress of the Swiss Psychological Society, 19th to 20th August 2009
- Ruch W, Proyer RT, Weber M (2010) Humor as character strength: its contribution to satisfaction with life among the elderly from a positive psychology perspective. *Z Gerontol Geriatr* (this issue)
- Samson AC, Meyer Y (2010) Perception of aggressive humor in relation to gelotophobia, gelotophilia, and katagelasticism. *Psy Sci Q* (in press)
- Titze M (2009) Gelotophobia: the fear of being laughed at. *Humor* 22:27–48